



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,188	06/15/2001	Suresh K. Bhate	INVE-2996	8386
5409	7590	12/06/2004	EXAMINER	
ARLEN L. OLSEN SCHMEISER, OLSEN & WATTS 3 LEAR JET LANE SUITE 201 LATHAM, NY 12110			STERRETT, JEFFREY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/882,188	Applicant(s) BHATE ET AL.	
	Examiner Jeffrey L. Sterrett	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) 20-32 and 41-47 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-40 is/are allowed.
- 6) ☒ Claim(s) 33-37 is/are rejected.
- 7) ☒ Claim(s) 1-19 is/are objected to.
- 8) ☒ Claim(s) 20-32 and 41-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6-15-01</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2838

1. Applicant's election with traverse of group I, claims 1-19 and 33-40 drawn to a switching power supply, in the reply filed on November 23, 2004 is acknowledged. The traversal is on the grounds that the subject matter of claims 1-47 are sufficiently related that a search for the subject matter of any one of the groups would encompass a search for the subject matter of the other groups. This is not found persuasive because the allowability of independent claims 1, 33, and 38 (and thus dependent claims 2-19, 34-37, 39, and 40) does not depend upon recitations of a heat sink or an inductor/transformer combination. As a matter of fact, independent claims 1, 33, and 38 do not even set forth any recitations of a heat sink whatsoever or any recitations of an inductor/transformer combination whatsoever and dependent claims 2-19 and 34-37 do not set forth any recitations of a heat sink whatsoever or any recitations of an inductor/transformer combination whatsoever either. While dependent claims 39 and 40 may generically set forth a heat sink, they in no way recited the specific heat sink details set forth by the other groups of claims.

The requirement is still deemed proper and is therefore made FINAL.

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old and known in the art at the time of the invention is illustrated (See MPEP § 608.02(g)). Figure 1 of this application is an exact copy of figure 2 of the prior art reference US 6,038,156 cited by applicant.

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so

Art Unit: 2838

as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

3. Claims 1-19 are objected to because in lines 12, 14 and 15 of claim 1 "the first winding" and " the second winding" lack proper antecedent basis. It is suggested that the word –primary- be inserted before the word "winding".

Appropriate correction is required.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 33-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Miko (US 4,334,267).

Miko discloses a switching inverter comprising a transformer (20) with a first primary winding (20a) connected in series to a first switch (Q1) and a DC source (23) and a second primary winding (20b) connected in series to a second switch (Q2) and the DC source (23) wherein the first primary and second windings are formed from Litz wire (see lines 7-10 of column 11).

6. Claims 1-19 would be allowable if rewritten or amended to overcome the objection set forth above in this Office action.

The claimed invention of a switching inverter is found to be allowable over the prior art since a switching inverter comprising a transformer including ribbon conductors

Art Unit: 2838

having an aspect ratio of at least 100 as the windings and segments of the windings coaxially wound was not found to be singularly or collectively taught by the prior art.

7. Claims 38-40 are allowed.

The claimed invention of a switching inverter is found to be allowable over the prior art since a switching inverter comprising a transformer having first and second primary windings with minimized uncoupled inductance allowing more than 100 amperes to flow in the primary windings at sinewave PWM frequencies greater than 2 kHz was not found to be singularly or collectively taught by the prior art.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al (US 4,250,541), Lane (US 5,331,536), and Pan et al (US 5,835,367) are cited to show switching inverters old and known in the art at the time of the invention.

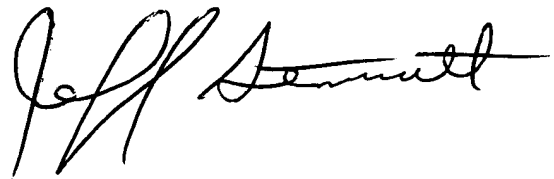
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571) 272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett
Primary Examiner
Art Unit 2838

A handwritten signature in black ink, appearing to read "Jeff Sterrett", written in a cursive style.